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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, TU X

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2618

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/087,437	Applicant(s) LAIHO ET AL.	
	Examiner TU X. NGUYEN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,8,9,12-17,19,20,22-31,34,36-38,40-50,52 and 53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8,9,12-17,19,20,22-25,27-31,34,36-38,40-50,52 and 53 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1, 19, 31 and 46, have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8-9, 12-17, 19-21, 23-25, 27-30 and 52, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chennakeshu et al. (US Patent 5822310) in view of Kasper (US Pub. 2002/0133647).

Regarding claim 1, Chennakeshu et al. disclose a method comprising:

receiving, at a mobile terminal, buffered data as a digital broadcast transmission burst in a time-slicing signal (col.3 lines 30-34), the buffered data corresponding to a first portion of an information stream (col.2 lines 14-16), said digital broadcast transmission burst having a duration smaller than the duration of said first portion of said information stream (col.2 lines 14-19);

powering-up a digital broadcast receiver in the mobile terminal in synchronicity with the transmission of said digital broadcast transmission burst such that the mobile terminal is powered-up when said digital broadcast transmission burst is being received (col.3 lines 30-41, col.11 lines 45-50).

Chennakeshu et al. fail to disclose a receiver input buffer.

Kasper disclose a receiver input buffer (par.070). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Chennakeshu et al. with the above teaching of Kasper in order to provide transmitting data into a FIFO memory which allows additional bursts of data without overflow.

Regarding claim 2, the modified Chennakeshu et al. disclose the buffered data is transmitted from a service input buffer comprising at least one member of the group consisting of: a first-in-first-out (FIFO) buffer (Kasper, par.018), an elastic buffer, a ring buffer, and a dual buffer having separate input and output sections.

Regarding claim 3, the modified Chennakeshu et al. disclose said buffered data comprises at least one of: a predetermined amount of said information stream and an amount of said information stream received during a predetermined time interval (Chennakeshu et al., col.5 lines 16-25).

Regarding claim 4, the modified Chennakeshu et al. disclose powering-up said receiver occurs a specified interval of time prior to said receiving (Chennakeshu et al., col.11 lines 45-50).

Regarding claims 5 and 23, the modified Chennakeshu et al. disclose said specified interval of time comprises a member of the group consisting of: a bit-rate adaptation time, a

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receiver switch-on time, and a receiver acquisition time (Chennakeshu et al., col.3 lines 30-40, col.11 lines 45-50).

Regarding claims 8, 20-21, 24, the modified Chennakeshu et al. disclose powering-down said receiver a predefined interval of time subsequent to said powering-up said receiver (Chennakeshu et al., col.3 lines 30-40, col.11 lines 45-50).

Regarding claims 9 and 25, the modified Chennakeshu et al. disclose predefined interval of time comprises a time interval greater than said duration of said transmission burst (Chennakeshu et al., col.3 lines 30-40).

Regarding claim 12, the modified Chennakeshu et al. disclose the buffered data is encapsulated using a multi-protocol encapsulator to form encapsulated data (Kasper, par.057, 0119).

Regarding claim 13, the modified Chennakeshu et al. fail to disclose said multi-protocol encapsulator conforms to standard EN 301192. The Examiner takes an Official notice transport stream transmission burst in accordance with Section 7 of European Standard EN 301192 is available at the time the invention was made.

Regarding claim 14 and 29, the modified Chennakeshu et al. disclose stripping encapsulation from said transmission burst to form received data (Kaper, par.057, 0119, it is considered that the data being encapsulated for transmission and would decapsulated at the receiver side).

Regarding claims 15 and 28, the modified Chennakeshu et al. disclose sending said received data to an application processor for conversion to an information data stream (Kasper, par.073).

Regarding claim 16, the modified Chennakeshu et al. disclose receiving a second buffered data as a second digital broadcast transmission burst, said second digital broadcast transmission burst having a duration smaller than the duration of said portion of said second information stream, wherein the second buffered data comprises a portion of a second information stream (Chennakeshu et al., col.3 lines 30-41).

Regarding claim 17, the modified Chennakeshu et al. disclose the transmission burst and said second transmission burst are multiplexed to produce a time-division multiplexed signal (Chennakeshu et al., col.3 lines 30-41).

Regarding claim 19, the modified Chennakeshu et al. disclose everything as claim 1 above; more specifically, the modified Chennakeshu et al. disclose a processor (Chennakeshu et al., fig.1, element 180).

Regarding claim 27, the modified Chennakeshu et al. disclose the digital broadcast receiver is powered-down an incremental period of time subsequent to the transmission of said digital broadcast transmission burst (Chennakeshu et al., col.3 lines 30-41, col.11 lines 45-50).

Regarding claim 30, the modified Chennakeshu et al. disclose said stream filter comprises an Internet protocol (IP) filter (Kasper, par.0119).

Regarding claim 52, the modified Chennakeshu et al. disclose the streaming information comprises multimedia content. The Examiner takes an Official notice that the concept distribute multimedia content to mobile users is well known and available at the time the invention was made.

Claims 31, 36-38, 40, 46 and 53, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chennakeshu et al. (US Patent 5822310) in view of Karbinis (US Pub. 2003/0054760).

Regarding claims 31 and 46, Chennakeshu et al. disclose a processor configured to receive streaming information from a service provider; and transmit, from the apparatus, said streaming information in a digital broadcast transmission burst to a remote mobile terminal at a higher bit rate than the rate at which said streaming information is received from the service provider, wherein the digital broadcast transmission burst is transmitted as a time sliced signal and wherein the transmission is synchronized with a power-up of the remote mobile terminal (fig.1 element 180, col.2 lines 14-19, col.3 lines 30-41, col.11 lines 45-50).

Chennakeshu et al. fail to disclose broadcast transmission burst to a remote mobile terminal at a higher bit rate than the rate at which said streaming information is received from the service provider.

Karabinis discloses broadcast transmission burst to a remote mobile terminal at a higher bit rate than the rate at which said streaming information is received from the service provider (par.054). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Chennakeshu et al. with the above teaching of Karabinis in order to provide base station with high efficiency load serving mobile devices.

Regarding claim 34, the modified Chennakeshu et al. disclose at least one service is provided by the information service provider via at least one information stream (Chennakeshu et al., abstract).

Regarding claim 36, the modified Chennakeshu et al. disclose the transmission of the digital broadcast transmission burst is synchronized with the powering-up of a digital broadcast receiver of the remote mobile terminal based on a pre-determined powered-up time (Chennakeshu et al., col.3 lines 30-41, col.11 lines 45-50).

Regarding claim 37, the modified Chennakeshu et al. disclose the digital broadcast receiver is powered-down an incremental period of time subsequent to the transmission of said digital broadcast transmission burst (Chennakeshu et al., col.3 lines 30-41, col.11 lines 45-50).

Regarding claim 38, the modified Chennakeshu et al. disclose said pre-determined powered-up time occurs a specified period of time subsequent to said pre-determined powered- down time (Chennakeshu et al., col.3 lines 30-41, col.11 lines 45-50).

Regarding claim 40, the modified Chennakeshu et al. disclose wherein the remote mobile terminal comprises an application processor configured to convert said digital broadcast transmission burst into an information data stream (Chennakeshu et al., fig.1, element 180).

Regarding claim 53, the modified Chennakeshu et al. disclose a size of the digital broadcast transmission burst is defined independently of a receiver bandwidth allocation (Chennakeshu et al., col.3 lines 30-40, col.11 lines 45-50).

Claims 41-42, 47 and 50, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chennakeshu et al. (US Patent 5822310) in view of Karbinis (US Pub. 2003/0054760) further in view of Kasper (US Pub. 2002/0133647).

Regarding claims 41 and 47, the modified Chennakeshu et al. disclose a multi-protocol encapsulator for encapsulating at least a portion of said streaming information.

Kasper disclose a multi-protocol encapsulator for encapsulating at least a portion of said streaming information (par.057, 0119). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Chennakeshu et al. with the above teaching of Kasper in order to provide source and target address for routing information stream.

Regarding claim 42, the modified Chennakeshu et al. disclose said stream filter comprises an Internet protocol (IP) filter (Kasper, par.0119).

Regarding claim 50, the modified Chennakeshu et al. disclose powering-up said receiver occurs a specified interval of time prior to said receiving (Chennakeshu et al., col.11 lines 45-50).

Claims 43-45 and 48-49, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chennakeshu et al. (US Patent 5822310) in view of Karbinis (US Pub. 2003/0054760) in view of Hanko et al. (US Patent 6438141).

Regarding claims 43 and 48, the modified Chennakeshu et al. fail to disclose a second service input buffer for storing at least an interval of second streaming information provided by a second information service provider, wherein the apparatus broadcasts the contents of said second service input buffer as a second digital broadcast transmission burst.

Hanko et al. disclose a second service input buffer for storing at least an interval of second streaming information provided by a second information service provider, wherein the

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apparatus broadcasts the contents of said second service input buffer as a second digital broadcast transmission burst (fig.1). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Chennakeshu et al. with the above teaching of Hanco et al. in order to provide multiple data source distribution to mobile users.

Regarding claims 44 and 49, the modified Chennakeshu et al. disclose a multiplexer for multiplexing said digital broadcast transmission burst and said second transmission burst such that said apparatus broadcasts said digital broadcast transmission burst and said second transmission burst as a time-division multiplexed signal (Hanco, col.3 lines 51-52).

Regarding claim 45, the modified Chennakeshu et al. disclose a network operator input buffer (see Hanco, fig.1, element 102).

Allowable Subject Matter

Claim 26 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Regarding claim 26, the prior art fails to teach the digital broadcast receiver is powered-down at the setting of a flag indicating an almost-full byte count in said receiver input buffer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 571-272-7883.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tu X Nguyen/

Examiner, Art Unit 2618

10/30/08